

CLAIMS

1 1. A brake pedal assembly for a vehicle with a support bracket
2 containing an integral switch, said brake pedal assembly comprising:

3 a support bracket having a generally planar mounting face, wherein said
4 mounting face includes at least one aperture for securing the support bracket to
5 the vehicle;

6 a first side wall and a second side wall spaced a predetermined distance
7 apart from said first side wall, and each side wall extends radially from said
8 mounting face, wherein an integral switch portion of said first side wall
9 contains two generally parallel arcuate slots;

10 a pivot means operatively supported between said first and second side
11 walls;

12 a pedal arm pivotally mounted onto said pivot means;

13 a pedal link pivotally mounted onto said pivot means, and operatively
14 connected to said pedal arm, wherein said pedal link is a generally planar
15 member;

16 at least one pair of contact posts disposed on said pedal link and
17 positioned so as to extend therethrough the corresponding arcuate slot in said
18 integral switch portion of said first side wall;

19 a conductive means operatively interconnecting each contact post in the
20 pair of contact posts;

21 a brake booster means operatively attached to said pedal link, and
22 supported by the housing; and

23 a switch cover plate secured to said first side wall, wherein a switching
24 means is operatively disposed on an inside surface of said cover plate, and said
25 contact posts travel within the arcuate slot in response to movement of the
26 pedal arm to electrically engage said switching means and send an electrical
27 signal to a component in communication with the integral switch.

1 2. A brake pedal assembly as set forth in claim 1 wherein said first
2 side wall includes an outwardly projecting switch wall defining a perimeter of

3 the integral switch portion of said first side wall, and said switch cover is
4 secured to said switch wall.

1 3. A brake pedal assembly as set forth in claim 1 wherein said
2 switch cover plate includes an integrally formed connector for electrically
3 connecting said switching means to a component in communication with the
4 integral switch.

1 4. A brake pedal assembly as set forth in claim 1 further
2 comprising an upper wall interconnecting said spaced apart side arms, wherein
3 said upper wall is generally parallel to and spaced a predetermined distance
4 from said mounting face and said upper wall includes at least one aperture for
5 securing the support bracket to the vehicle.

1 5. A brake pedal assembly as set forth in claims 1 wherein said
2 switching means is a printed circuit board.

1 6. A brake pedal assembly for a vehicle with a support bracket
2 containing an integral switch, said brake pedal assembly comprising:
3 a support bracket having a generally planar mounting face, wherein said
4 mounting face includes at least one aperture for securing the support bracket to
5 the vehicle;
6 a first side wall and a second side wall spaced a predetermined distance
7 apart from said first side wall, and each side wall extends radially from said
8 mounting face, wherein an integral switch portion of said first side wall
9 includes an outwardly projecting switch wall defining a perimeter of the
10 integral switch, and two generally parallel arcuate slots are contained within
11 said switch wall;
12 a pivot means operatively supported between said first and second side
13 walls;
14 a pedal arm pivotally mounted onto said pivot means;

15 a pedal link pivotally mounted onto said pivot means, and operatively
16 connected to said pedal arm, wherein said pedal link is a generally planar
17 member;

18 at least one pair of contact posts disposed on said pedal link and
19 positioned so as to extend therethrough the corresponding arcuate slot in said
20 integral switch portion of said first side wall;

21 a conductive strip operatively interconnecting each contact post in the
22 pair of contact posts, wherein said conductive strip includes a plurality of
23 brushes;

24 a brake booster means operatively attached to said pedal link, and
25 supported by the housing; and

26 a switch cover plate secured to said switch wall, wherein a switching
27 means is operatively disposed on an inside surface of said cover plate, and said
28 contact posts travel within the arcuate slot in response to movement of the
29 pedal arm to electrically engage said switching means and send an electrical
30 signal to a component in communication with the integral switch.

1 7. A brake pedal assembly as set forth in claim 6 wherein said
2 switch cover plate includes an integrally formed connector for electrically
3 connecting said switching means to a component in communication with the
4 integral switch.

1 8. A brake pedal assembly as set forth in claim 6 further
2 comprising an upper wall interconnecting said spaced apart side arms, wherein
3 said upper wall is generally parallel to and spaced a predetermined distance
4 from said mounting face and said upper wall includes at least one aperture for
5 securing the support bracket to the vehicle.

1 9. A brake pedal assembly as set forth in claim 6 wherein said
2 switching means is a printed circuit board.

1 10. A brake pedal assembly for a vehicle with a support bracket
2 containing an integrated switch, said brake pedal assembly comprising:

3 A support bracket having a generally planar mounting face, wherein
4 said mounting face includes at least one aperture for securing the support
5 bracket to the vehicle;

6 a first side wall and a second side wall spaced a predetermined distance
7 apart from said first side wall, and each side wall extends radially from said
8 mounting face, wherein an integral switch portion of said first side wall
9 includes an outwardly projecting switch wall defining a perimeter of the
10 integral switch, and two generally parallel arcuate slots are contained within
11 said switch wall;

12 a pivot means operatively supported between said first and second side
13 walls;

14 a pedal arm pivotally mounted onto said pivot means;

15 a pedal link pivotally mounted onto said pivot means, and operatively
16 connected to said pedal arm, wherein said pedal link is a generally planar
17 member;

18 at least one pair of contact posts disposed on said pedal link and
19 positioned so as to extend therethrough the corresponding arcuate slot in said
20 integral switch portion of said first side wall;

21 a conductive strip operatively interconnecting each contact post in the
22 pair of contact posts, wherein said conductive strip includes a plurality of
23 brushes;

24 a brake booster means operatively attached to said pedal link, and
25 supported by the housing; and

26 a switch cover plate secured to said switch wall and wherein a
27 switching means is operatively disposed on an inside surface of said cover
28 plate, said switch cover plate includes an integrally formed connector for
29 electrically connecting said switching means to a component in communication
30 with the integral switch, and said contact posts travel within the arcuate slot in
31 response to movement of the pedal arm to electrically engage said switching

32 means and send an electrical signal to the component in communication with
33 the integral switch.

1 11. A brake pedal assembly as set forth in claim 10 further
2 comprising an upper wall interconnecting said spaced apart side arms, wherein
3 said upper wall is generally parallel to and spaced a predetermined distance
4 from said mounting face and said upper wall includes at least one aperture for
5 securing the support bracket to the vehicle.

1 12. A brake pedal assembly as set forth in claim 10 wherein said
2 switching means is a printed circuit board.